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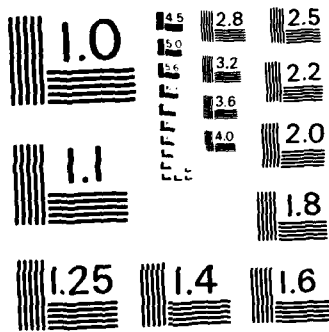
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THE EUROPEAN POLITICAL ENVIRONMENT  
AND NATO MARITIME STRATEGY:  
THE FUTURE ROLE OF NAVAL FORCES IN THE  
FORWARD DEFENSE OF WESTERN EUROPE

VOLUME ONE



2

FINAL SUMMARY REPORT

10 July 1985

THE EUROPEAN POLITICAL ENVIRONMENT  
AND NATO MARITIME STRATEGY:  
THE FUTURE ROLE OF NAVAL FORCES IN THE  
FORWARD DEFENSE OF WESTERN EUROPE

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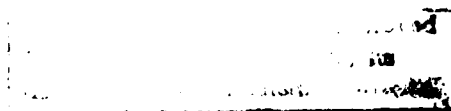
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<p>Until recently NATO planning focused on the balance of air-land forces on the Central Front. It was assumed that NATO maritime forces would be used almost exclusively to defend transatlantic SLOCs and protect the flanks. Navies have received more attention of late, for although sea power alone cannot win a war in Europe, a war cannot be won without it.</p> <p>It is now recognized that naval forces can: strengthen deterrence at all levels (not only strategic); project power to stabilize non-NATO areas vital to the</p>		

## 20. ABSTRACT (continued)

Alliance; augment defensive and offensive capabilities for a forward strategy; provide crisis flexibility and enhance escalation control; reduce pressure in war for NATO's early first use of nuclear weapons; and in peacetime increase Europe's political self-confidence in the face of growing Soviet military power.

The Soviet Union is well prepared for either nuclear or nonnuclear war in Europe. It may be tempted to exploit its conventional superiority and the West's antinuclearism by launching a nonnuclear attack. If so, it should be compelled to calculate the danger of horizontal escalation.

An integral NATO maritime strategy will require close cooperation and agreed division of tasks among Allies. The potential contribution of naval forces to land battles is assessed in light of emerging technologies.

There is a need for innovative peacetime employment of U.S. naval power, e.g., in the Norwegian Sea. This raises the question of "forward deployment" and the war-time vulnerability of attack aircraft carriers, essential for the employment of tactical aviation.

Soviet maritime strategy aims at: political intimidation in peacetime; a layered defense to protect SSBNs, the Kola-Barents area and the Soviet homeland; control of Norway, the GIUK Gap, the Baltic, the Danish and Turkish Straits; amphibious attacks against NORTHAG; interdiction of NATO SLOCs; threatening NATO Mediterranean forces from Syria and Libya; and interdicting the flow of resources to Europe from the Mideast and U.S. Gulf ports.

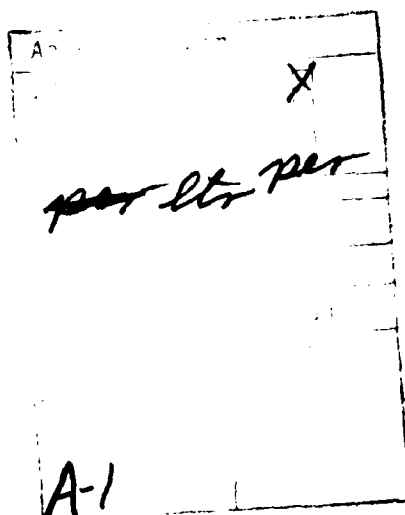
Weaknesses of the flanks which make them susceptible to Soviet pressure are examined. These include: Scandinavian sense of isolation and neutralism; the Greek-Turkish dispute; the air defense gap in the eastern Mediterranean; Spanish-Portuguese disagreements over command structure; problems of Libya and Malta. The spread of affordable weapons technology among Third World riparian states will make the Mediterranean increasingly dangerous. The readiness of allies to cooperate in meeting various conflict contingencies in-and-out-of-area is evaluated.

Detailed attention is devoted to Tomahawk sea-launched cruise missile deployment of which will significantly enhance the U.S. Fleet's striking power. Arguments of opponents and advocates of TLAM-N are presented. On balance, TLAM-N is favored. Both nuclear and conventional land-attack cruise missiles will have a more direct impact on deterrence and forward defense operation on NATO's flanks than on the Central Front. TLAM-C, with its capacity for deep interdiction, might have a limited role in FOFA. Because of technical verification difficulties and, even moreso, for compelling military strategic reasons, it is not desirable that SLCMs be placed in the "arms control pot."

Rules of Engagement (ROE) -- or standing orders which govern a commander's ability to open fire -- are crucial to the operation of U.S. naval forces in the ambiguous situations of peacetime and war. NATO must avoid two dangers -- military disaster caused by excessive restraint and political disaster resulting from excessive looseness. The Soviets may become more willing to take risks as their power increases. The sea is the one environment where the West can signal its resolve in crisis by altering the deployment of its forces without arousing public fears that war is about to begin. NATO Allies must formulate sound ROE extending across the full conflict spectrum from crises short of war to wartime itself.

Appropriate conclusions are drawn and recommendations made to improve NATO planning for the role of maritime forces.

THE EUROPEAN POLITICAL ENVIRONMENT  
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FORWARD DEFENSE OF WESTERN EUROPE



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PREFACE

In March 1984 the Institute for Foreign Policy Analysis undertook a study whose purpose was to examine current NATO maritime strategy and how it is being affected by the developing political environment in Western Europe, by Soviet strategy and the maritime threats it poses to the Alliance, by the effect of new technologies, by the debate over forward strategy and horizontal escalation, and by the impact of nuclear weapons and arms control initiatives. This Report is based on research conducted by the Institute as a part of U.S. Navy Contract No. 00014-84-C-0117.

Principal work undertaken by the professional staff of the Institute has been augmented by that of outside experts in various phases of the project. On 31 January - 1 February 1985, as an integral part of the effort, the Institute sponsored a conference in Washington, D.C., during which papers commissioned for the study were reviewed, and a dialogue conducted, with a view to generating additional insights on subjects directly related to the central themes under investigation. The conference, in addition to papers presented by a distinguished array of outside experts,

featured addresses by The Honorable Dan Quayle and The Honorable John Warner, both of the United States Senate.

Among the attendees were key commanding officers of the U.S. Navy, past and present, as well as principal civilian policymakers, including: Admiral Wesley L. McDonald, Commander in Chief Atlantic, and Commander in Chief, U.S. Atlantic Fleet; Admiral Thomas B. Hayward, USN (Ret.), former Chief of Naval Operations; Mr. Andrew Marshall, Director of Net Assessment, Office of the Secretary of Defense; Dr. Dov Zakheim, Assistant Under-Secretary of Defense for Policy/Resources; Rear Admiral E. F. Gueritz, Royal Navy (Ret.); General H. F. Zeiner Gundersen, Norwegian Army (Ret.); and Admiral Maurice Duval, French Navy (Ret.).

The research and analyses completed for the study are synthesized in the Final Summary Report, contained in this Volume. A more detailed treatment of specific themes addressed in the study is to be found in Volume II, which contains the full text of all papers prepared for the study and the conference.

## CONCLUSIONS

- NATO planning has traditionally focused on the problems of air-land combat along the Central Front to the detriment of Flank defenses and, particularly, to the use of naval forces in the defense of Western Europe.
- Naval forces can strengthen deterrence at all levels; help restore stability in out-of-area contingencies; provide crisis management flexibility; reduce pressure on NATO for early first use of nuclear weapons in war; and in peacetime increase the political self-confidence of a Europe faced by growing Soviet military power.
- Whether defending against USSR incursions or neutralizing gains made in the event the Soviets are successful, Allied sea power -- particularly carrier air, submarines, and cruise missiles -- would be indispensable.
- The Soviet Union has developed the capacity to fight a prolonged, nonnuclear war in Europe in which naval forces would be employed in an attempt to isolate the United States from Western Europe.
- While it is true that sea power alone cannot defeat the Soviet Union, it is also true that without strong, balanced naval forces and a virile merchant marine, NATO cannot hope to win a full-scale war in Europe.
- While carefully selected and executed acts of horizontal escalation can contribute to a more varied, flexible maritime strategy, they carry the risk of vertical escalation -- if Soviet territory is struck -- and it should not be overlooked that the concept of horizontal escalation is an option also available to the USSR.
- There is a fundamental difference between NATO and the United States with respect to defense

planning in that the Europeans emphasize deterrence and devote inadequate attention to warfighting whereas the United States, while stressing deterrence, plans equally to fight if deterrence fails and war comes. Yet an integral NATO maritime strategy will require close cooperation and an agreed division of tasks among allies.

- So long as the manned aircraft is relevant to warfare, lack of overseas bases will require the U.S. Navy to take tactical aviation to sea, and the evidence reveals that the large, attack carrier will be indispensable. No weapons platform is invulnerable, but carriers are survivable.
- It should be presumed that Soviet strategy includes numerous wartime objectives the achievement of which will involve its fleet units: protection of the Barents Sea bastion, seizure of Northern Norway and Iceland, control of the Danish and Turkish Straits, disruption of Western SLOCs, among others.
- Scandinavian countries have long been subject to Soviet political and military pressures designed to increase their sense of isolation. The spectacular growth of the Soviet Northern Fleet has fostered the impression that it is dominant in the Norwegian Sea.
- SACLANT fears that waiting until Reinforced Alert to assign national naval forces to his command would grant the Soviets time to seize control of the Norwegian Sea, thus forcing him to adopt a "roll-back" strategy to regain that control.
- One of the foremost factors contributing to Allied weakness on the Southern Flank is the seemingly intractable dispute between Greece and Turkey, and sound deterrence as well as viable plans for defense of the region hinge on solving this problem. At the western end of the Mediterranean, Spanish-Portuguese disagreement over command structure hampers NATO maritime planning.

- The naval contributions of France and Spain -- both being outside the military structure of the Alliance -- are major unknowns.
- The proliferation of "smart" weapons and their carriage on small, inexpensive platforms present particular problems for Allied naval forces in the Mediterranean Sea and some out-of-area regions.
- Weakness on the Southern Flank is accentuated by the general obsolescence of the armed forces of Greece and Turkey, especially in air defense.
- Sea-Launched Cruise Missiles in all versions -- nuclear, land-attack conventional, and sea-attack conventional -- offer broad new horizons for the use of naval power both at sea and in support of a land campaign in Europe. This is particularly true on the flanks, and TLAM-C, with its capacity for deep interdiction, may have a role to play in FOFA -- e.g., striking rear area logistical networks and staging areas.
- These weapons also present acute problems with respect to arms control due to verification difficulties stemming from the indistinguishability of their varied versions. Because of these technical difficulties and even more compelling military-strategic reasons, it is not desirable that SLCMs be placed in the "arms control pot."
- Any agreement controlling the nuclear-attack cruise missile will certainly constrain conventional models and seriously limit their important uses.
- Rules of Engagement, particularly in crises short of war, are essential and pose significant problems for NATO for the following reasons: national rules govern prior to TOA, and these vary widely; existing NATO ROE are vague; and there is a critical discrepancy between NATO versions requiring hostile action prior to response and those of the United States which are generally based on hostile intent.

## RECOMMENDATIONS

Given the multinational and political nature of the North Atlantic Alliance, changes in defense strategy can be made only after lengthy and, at times, frustrating justification and negotiations. This is particularly true insofar as alterations in established defense plans are concerned. For this reason, a variety of approaches will be required to alter past and current thinking governing the use of sea power in the defense of Western Europe. Primarily, the impetus for change will have to originate with individual governments and their military services. International staffs, in the field and at NATO Headquarters, can only exert limited initiatory influence.

In examining the following recommendations, these realities should be borne in mind. Some of the suggested improvements will have to undergo the tortuous NATO process. Others can be taken by the United States and its Navy, acting on their own or with cooperation from NATO as an entity or from one or more individual members of the Alliance.

- The United States should not consider nor press NATO to consider horizontal escalation as a fundamental strategic precept governing all defense planning, naval or otherwise.
- The United States should, nevertheless, urge NATO to give serious thought to how horizontal escalation could be integrated in defense planning including specific contingency planning involving the navies of all the Allies.

concentrations and tank columns, with results comparable to similar weapons fired from battlefield sites. It is not clear that NATO military or political circles are according sufficient thought to these possibilities. Nor does it appear that they are aware of the important contributions which sea power with its inherent flexibility can make to deterrence, crisis management and, ultimately, the defense of Western Europe.

A dichotomy exists between NATO and U.S. planning for defense against an assault by the Soviet Union backed by its Warsaw Pact allies. In many European political circles, deterrence is the only objective worthy of consideration. This, however, is not true in NATO military commands. In the United States, deterrence is a foremost element, but planning extends further to the unlikely but nevertheless real possibility that deterrence might fail. In this case, how to fight a subsequent war is a prime issue.

The composition of most West European navies emphasizes conventional deterrence in peacetime and, in wartime, defense of coastal waters against Soviet exploitation along with protection of adjacent segments of NATO SLOCs.

In keeping with West European concern over possible decoupling of Alliance security from that of the United States, NATO nations fear that the Soviet Union might concentrate its maritime power on West European targets to the exclusion of those in the continental United States. The objectives of such a Soviet ploy are evident: isolation of European NATO nations

NATO maritime strategy, one less reactive to Soviet initiatives and better integrated with NATO combat operations: ground and air.

U.S. Sea Power and  
NATO Planning

There is an unfortunate tendency in NATO maritime thought to separate land and sea operations. It stems, in part, from geographic realities. Terrain and distance factors, for instance, have restricted those roles the Sixth Fleet could play on NATO's Central Front. A secondary or diversionary Soviet offensive thrust through Bulgaria or Yugoslavia -- even neutral Austria -- however, would bring Pact ground forces within range of Alliance sea-based assets, exposing lucrative targets to attack by U.S. and NATO maritime elements.

The potential for close cooperation between U.S. and other NATO sea- and ground-based forces is considerably greater on the Northern Flank where U.S. naval power -- including land-attack cruise missiles -- is now capable of launching strikes against fixed Soviet/Warsaw Pact installations: airfields, rail, and road choke points, command posts, and communications centers. With emergence of next-generation technologies, including real-time intelligence transmission, the capability of seaborne forces to contribute further support to land battles will increase. For example, the present accuracy of maritime navigational systems will permit sea-launched cruise missiles to hit mobile targets on land, such as troop



- If horizontal escalation is to remain a credible option for NATO, then every effort must first be made to restore and maintain a nuclear balance, both at the theater and strategic levels.
- There is a need to consider potential contributions from allied forces -- especially naval units -- when designing contingency plans for horizontal escalation within the NATO theater.
- The allied dimension of horizontal escalation needs to be more fully addressed on a functional and geographic basis. In this context, NATO planning staffs might prepare for the assignment of specific tasks to particular allied units at various stages of alert in a developing crisis. In fact, a division of labor, both for prewar crises and periods of actual combat, would seem to accord with European interests in a greater specialization of military tasks within NATO.
- The United States still needs to convince its NATO allies that American plans for horizontal escalation do not constitute adoption of a "no-first-use" policy with respect to nuclear weapons. The West Europeans must be assured that the Alliance's strategy of deterrence remains based on the threat of U.S. nuclear retaliation in response to a Warsaw Pact attack. Horizontal escalation is simply a component -- albeit an increasingly important one -- in NATO's overall posture of deterrence and armed defense which always has included graduated escalation.

Horizontal escalation, then, offers no panacea for current shortcomings in NATO's force structure. Nor should it ever be advanced as a fundamental strategic precept on which all NATO planning should be based, naval or otherwise. It helps, however, to focus attention on the need -- and, to some extent, provides the conceptual framework -- for a more flexible, varied

still consider them to be peripheral distractions which do not involve Alliance interests. In many respects, given their geostrategic positions and importance, extra-regional theaters that border NATO's legal frontiers -- such as the Arctic, Northwest Africa, the Eastern Mediterranean/Near East crescent and the Caribbean Basin -- represent exposed "outer-flanks" that can be turned and split off from the North Atlantic/West European center. An ability to project power and respond to out-of-area threats, therefore, is an increasingly important mission for NATO naval forces.

- Within the NATO area, key choke points through which the various Soviet fleets must pass, as well as critical ports and supply routes, would appear to be obvious points for escalation by both sides, once hostilities erupt on the Central Front. It seems inconceivable, for example, that there would not be some sort of race to seize control of the Danish and Turkish Straits.
- In protracted warfare scenarios (i.e., more than a month or so), maritime supply lines and raw materials from abroad would become increasingly important to NATO. Merchant shipping would be a likely target of horizontal escalation. Although this could work more to the advantage of the Pact than NATO, the Soviet bloc, too, is becoming more dependent on overseas trade and supply networks.

There is an element of horizontal escalation built into NATO (and, probably, Soviet) theater strategy. Clearly, maritime capabilities in general, and the U.S. Navy in particular, are especially suited to counter as well as to initiate horizontal escalation whether in peacetime crises or during armed hostilities. The following caveats must, however, be kept in mind.

creatively to fashion effective indirect responses to Soviet aggression, thereby buttressing deterrence as a whole. The following factors should be considered:

- There seems little chance that a war in Europe could be confined to European territory alone or exclusively to the Central Front. Military operations ultimately could spread to encompass NATO's flanks, the seas surrounding them, and SLOCs between the United States and the European theater. The longer the war lasts -- or, alternatively, the slower and more extended the tempo of developing hostilities -- the greater the opportunities for bringing to bear in the course of the war naval power that is not already deployed in waters near the point of NATO-European conflict.
- Critics of horizontal escalation who stress the need in NATO to focus on direct, not indirect, defense may draw too sharp (and theoretical) a distinction. At the level of operational strategy, indirect and direct approaches are complementary, not contending, aspects of an overall battlefield (or campaign) plan. Generally, one would make little sense without the other, although the priority assigned to either by local commanders certainly may vary as the battle develops and as opportunities arise.
- In crises short of war, U.S. and allied naval forces could prove extremely useful in probing Soviet intentions and signalling Western resolve, given the "strategic depth" for maneuver provided by the maritime theater, coupled with the flexibility of naval deployments.
- In recent years, events such as the Iranian revolution, the Soviet invasion of Afghanistan, the Falklands conflict, the Gulf War, and the U.S. rescue mission in Grenada have graphically illustrated the interrelationship of NATO security with out-of-area regions that are contiguous to the formal defense perimeter of the Atlantic Alliance. Yet, many NATO nations

Western Europe would be drawn down to meet a distant contingency not directly involving vital Alliance interests. Moreover, given the Soviet Union's "heartland" position on the Eurasian landmass, it is clear that horizontal escalation is not exclusively a Western option. The extent to which horizontal escalation is compatible with the strategic circumstances of NATO and sea power's role within it remain to be explored.

Current interest in horizontal escalation originated primarily with the need to devise an effective response to aggression by the Soviet Union and its proxies in areas beyond the geographical perimeter of NATO -- e.g., the Persian Gulf -- where the Western allies retain vital interests, but insufficient military power to defend them. It has been argued that, in addition to dispatching rapid deployment forces in response to some Soviet incursion outside Western Europe, the West could invoke the threat of horizontal escalation. The notion is that an unquestioned ability to shift the geographic focus of conflict, striking at Soviet forces in areas where Western military power could expect to enjoy clear superiority, would complicate gain-versus-loss calculations in Moscow. Proponents of the concept maintain that such action would strengthen deterrence and, should that fail, exert pressure on the USSR to seek termination of the conflict before it could get out of hand.

For the European theater, horizontal escalation gives rise to the issue of how naval forces could be used more

naval thought is the assumption that a conflict involving NATO and the Warsaw Pact could not be confined to West/East European regions and should be carried to the territory of the Soviet Union itself. With respect to U.S. maritime strategy, this assumption then presents the issue of "horizontal escalation" -- a priority question for NATO.

#### Horizontal Escalation

Simply stated, horizontal escalation is a concept encompassing identification of and strikes at offsetting enemy points of vulnerability regardless of a conflict's specific point of origin. This means that whether conflict erupts along the Central Front or on NATO's flanks, Allied forces would respond not only against the point of origin, but simultaneously against other aim points where Soviet forces might provide vulnerable target arrays.

The notion of horizontal escalation, which presumably includes strikes against Soviet territory, raises serious concerns on both sides of the Atlantic. In the United States, some perceive attacks on the Soviet homeland as constituting "vertical" escalation, inviting similar strikes against the United States itself with the ultimate danger of elevating the conflict to nuclear dimensions. In some West European circles, the concept generates fears that (1) an out-of-area conflict between the Soviet Union and the United States could spill over onto Alliance territory, or (2) U.S. military forces deployed in

apparently reassigned to an important post in the wartime command structure of the Warsaw Pact -- is preparing a major work outlining the parameters of a conventional war in Europe which would last longer than three months.

The longer such a conventional war might last without impending defeat of NATO, the less likely Western governments would be to use nuclear weapons, even if such escalation could be deemed advantageous for the Atlantic Alliance. Given such circumstances, the Soviet Union doubtless would seek to increase its bargaining leverage for war termination on favorable terms. That leverage would clearly decrease with time as the industrial power of the United States began to make its impact. Nuclear escalation would then become a Soviet dilemma.

An updated U.S. maritime strategy has recently been articulated. It places the American commitment to Western Europe in a global strategic perspective. In essence, this strategy recognizes not only the global interests of the United States, but also threats to the Alliance which can materialize beyond NATO's established boundaries. It seeks to exploit U.S. maritime strengths to the disadvantage of the USSR while maintaining the critically important defense of Western Europe. It raises, however, the issue of how best to employ naval assets in a range of European-related contingencies extending from an East-West crisis confrontation to open warfare between NATO and Warsaw Pact forces, all in light of the global security interests of the United States. Basic to contemporary U.S.

- Are risks of rapid escalation different on the flanks, as opposed to those on the Central Front?
- Should the targets of NATO forces be confined to aim points in non-Soviet Eastern Europe, or should retaliatory strikes include Soviet territory?
- Could a U.S.-Soviet confrontation outside the European theater be confined to the crisis area, or would it inevitably involve Western Europe?
- Would a U.S.-Soviet naval engagement beyond the boundaries of the Alliance precipitate a land conflict in Europe?

During the last decade, Soviet theater forces assigned to Europe have undergone changes designed to provide more flexible employment options; increased initiative on the part of "local" commanders; improved command and control procedures; a capability for conducting special operations against NATO's rear areas; and closer integration of all maritime assets into a comprehensive theater strategy. The USSR has also emphasized the operational maneuver group (OMG) concept. OMGs are designed to operate without external support, exploiting "breakthroughs" in the enemy's defensive positions and striking deeply into his rear areas. Moreover, the Soviet Union has the capacity to fight a prolonged, nonnuclear war in Europe in which naval forces would be employed in an attempt to isolate the United States from Western Europe.

Available evidence suggests that the Soviet exercise Zapad-81 was conducted without resort to nuclear weapons. Furthermore, there are reports that Marshall Ogarkov --

literature. Exceptions are naval actions required to assure successful conduct of the layered-theater battle.<sup>2</sup>

In part as a response to evolving Soviet naval strategy, tactics and force deployments, but also as a result of Western technological advances, NATO governments have become increasingly aware of the importance of naval forces, not only for transatlantic reinforcement, but also for:

- strengthening deterrence at all levels of warfare;
- projecting power to stabilize non-NATO areas vital to the Alliance;
- augmenting NATO's defensive and offensive capabilities in a forward strategy for the defense of Europe;
- enhancing U.S. and NATO ability to respond in crisis situations; and
- establishing a presence to improve the political self-confidence of Europe in the face of growing Soviet military power.

Renewed NATO interest in naval forces and maritime strategy has many origins. A central factor has been growing Western uncertainty over the likely course of a theater war in Europe as well as the best means to deter and, if need be, fight one. Several questions of enduring importance have, therefore, gained added salience:

- Will the war remain conventional for hours, days, weeks, months, or will it be nuclear from the first moment?
- Will it start on a large scale or build up gradually from some crisis confrontation?
- Should it be assumed that any war will be short or long?



perimeters of NATO, out-of-area threats to the Alliance are also considered.

The Atlantic Alliance and the  
Global Strategic Environment

Traditionally, NATO planning has focused on the problems of air-land combat along the Central Front. The role of naval forces has encompassed principally (1) transatlantic reinforcement; (2) defense of important sea lines of communication (SLOCs); and (3) protection of the Northern and Southern Flanks of NATO. Relatively little thought has been given to the potential role of NATO naval forces in support of the land battle in Europe, including employment of naval forces against land targets that threaten NATO's flank areas. This contrasts sharply with strategic thinking in the Soviet Union, which has integrated naval platforms into comprehensive politico-military plans. Soviet Admiral of the Fleet Sergei Gorshkov expressed it as follows:

Today a fleet operating against the shore is able not only to solve the tasks connected with territorial changes, but directly to influence the course and even outcome of a war. In the connection the operations of a fleet against the shore have assumed paramount importance in armed conflict at sea.<sup>1</sup>

The growing importance of the Soviet Navy in theater-land operations represents a persistent thrust in a series of recent articles by Gorshkov. This theme has eclipsed in importance "fleet versus fleet" operations as reflected in Soviet naval

THE FUTURE ROLE OF NAVAL FORCES  
IN THE FORWARD DEFENSE OF WESTERN EUROPE:  
POTENTIAL AND PROSPECTS

Scope and Purpose

This study examines the potential role of naval forces in a Warsaw Pact-NATO conflict and assesses the prospects for expanding the use of Allied sea power in the defense of NATO. Specific themes addressed include:

- The evolution of U.S. and NATO maritime strategies, including the role of nuclear weapons.
- NATO strategy and horizontal escalation.
- The politico-strategic environment in Western Europe, especially as it may affect naval forces deployed in support of NATO forward defense.
- Soviet maritime strategy in relation to NATO
- Naval operations in support of the Central Front as well as on the flanks.
- The current debate over rules of engagement at sea.
- The forward battle and employment options for the sea-launched cruise missile (SLCM) and other naval platforms.

Contingencies are identified in which Alliance naval capabilities -- present and prospective -- might be better utilized in the forward defense of Western Europe. While it is recognized that political constraints will continue to hinder concerted Allied action beyond the formally defined geographic

- In view of the difficulties in initiating changes to NATO strategy, the U.S. Navy could undertake a series of conferences -- encompassing NATO naval powers -- to examine identified needs for change, to explore still other possibilities, and to schedule at sea exercises to test tactics and doctrines which might emerge from these conferences.

occurring simultaneously on the Central Front, stationing of AWACs in Turkey could increase the effectiveness of these countries' air forces and U.S. carrier groups operating in their support.

- Creation of a standing NATO committee for Allied consultation on the impact and conduct of out-of-area operations to meet such threats to Alliance interests should be considered.
- Current tacit cooperation between French and Allied military and naval commands should be continued and further such areas explored.
- SLCMs -- nuclear and conventionally armed -- should be fully integrated in NATO defense plans, particularly on the Flanks. Moreover, their use in the FOFA concept should be fully explored.
- In light of the heavy demands which will be made on U.S. SSNs, thought should be given to making TLAM-Cs available to the British and, possibly, French navies.
- Continued research of cruise missile technology -- to improve range, conventional warhead lethalties, penetrability, and accuracy -- should be carried out as a matter of urgency.
- Since an arms agreement with respect to nuclear-armed cruise missiles will certainly place undesirable constraints on conventionally armed versions, the United States should guard against hasty and inadequately analyzed proposals to place SLCMs in the arms control arena.
- NATO must devise a sound and unambiguous set of Rules of Engagement for forces under Allied command, avoiding two dangers -- military disaster caused by excessive restraint and political disaster resulting from excessive looseness. Crisis ROE will become a critical element if agreement can be reached to place naval forces under such command well in advance of Reinforced Alert.
- To guarantee optimum security and wartime readiness of U.S. naval forces assigned to Allied command, the United States should make every effort to resolve the action versus intent ROE difference which exists.

from those in North America. The USSR's goal would be to foster neutralist or even accommodationist policies by the more vulnerable NATO-European governments.

Innovative peacetime employment of U.S. naval power could do a great deal to counter such pressures from the Soviet Union. For instance, included in European concerns over deterrence is the relative absence of a meaningful, routine American naval presence in the waters of the North and Norwegian Seas. Some believe that frequent deployment of a U.S. carrier battle group to the region would offer a visible demonstration of American power, thereby eroding the Scandinavian impression that an expanded Soviet Navy -- the Northern Fleet, in particular -- has transformed the balance of power in these waters. A relevant issue which then must be addressed, however, is the wartime vulnerability of the attack carrier. The credibility of such a task force, in peacetime as well as in wartime, hinges on the answer to this question

The Aircraft Carrier  
Vulnerability Issue

The attack aircraft carrier has been the capital ship of navies since the Japanese attack on Pearl Harbor. As it evolved during that war, it proved to be a durable and powerful warship. Able to survive and strike in the face of the most severe land-based air threats of the time, it emerged from World War II as the centerpiece of modern sea power. It did not, however, prove to be indestructible. Some American carriers --

all built before the war -- were sunk by Japanese seaborne aviation and submarine-launched torpedoes or had to be abandoned, while others were damaged by similar attacks as well as by massed Japanese suicide bombers. The Japanese carrier force was decimated by American naval aircraft and submarines. In no instance was any aircraft carrier lost to land-based air attack, nor were any of the Essex-class carriers sunk during the war.

Since that time, however, serious questions have been raised about the vulnerability of this type warship. The reasons are twofold. First, advent of the nuclear weapon rendered everything on earth vulnerable, carriers included. It is true that moving targets are more difficult to hit than stationary ones, but it must also be recognized that even a near miss by a thermonuclear weapon would certainly sink or cripple any ship afloat. Moreover, the large, attack aircraft carrier -- like the battleship between the two World Wars -- has not really been tested in a high threat environment since 1945.

In myriad crises of varying intensities and in two very hot wars -- Korea and Vietnam -- these ships have proved their ability to influence international events and to inflict stunning damage on an adversary. Still, carriers have not confronted the combined air, surface, and subsurface threat inherent in a major conflict. Thus, critics can honestly question their survivability and, therefore, utility in modern warfare.

While the utility issue was effectively resolved by the Falkland Islands War -- without carriers, the British would have lost -- it raised more questions than it answered. Despite the skill of Britain's Harrier pilots and the excellence of the U.S. Sidewinder missile, Argentinean aviators -- operating on the outer edges of their aircraft performance envelopes -- inflicted grievous losses on the Royal Navy. As James L. George observed, "... if there is a message in the Falklands War, it is that there is a place in the spectrum of naval warfare for both large and small carrier."<sup>3</sup>

Once the nuclear environment is left behind, the entire equation of carrier vulnerability changes radically despite the second altered circumstances: birth of the so-called smart missile. Advances in damage control, area air defense, sustainability, and maneuverability -- the latter two attributes conferred by nuclear propulsion -- render the modern attack carrier one of the two most survivable surface warships afloat. Its only competitor -- the Iowa-class battleship -- could well become the capital ship of the future as manned aircraft are made increasingly irrelevant by "smart" missiles.

Nevertheless, it is risky to discount the future of sea-based aviation. Major Alexander P. deSeversky discovered this truth following publication of a book in 1942. In that volume, he stated: "The idea that navies can carry war to hostile shores across the ocean under the protection of air power brought along on armadas of aircraft carriers and

unleashed against the enemy is wholly unrealistic."<sup>4</sup> The Japanese, based on their experiences in the Second World War, surely would contest such an assertion.

Insofar as warships are concerned, vulnerability comprises two fundamental aspects: what is required to sink a ship; and how much punishment it can absorb while continuing to operate. The pertinent experience of sinkings during the Second World War has been addressed. Equally relevant is the fact that of the 42 times U.S. carriers were hit during World War II, 21 attacks caused the ship to be put out of action for periods of one to 24 weeks, but 16 damaged carriers continued to operate aircraft. Since 1945, three major accidents have occurred aboard U.S. carriers -- no serious enemy threat was encountered and no carrier was put out of service by such action. In one instance, nine large bombs exploded on the flight deck (the equivalent of half-a-dozen cruise missiles) and the ship could have resumed flight operations within a matter of hours.

Soviet forces arrayed against the present U.S. carrier forces are formidable. However, task force defenses have improved vastly in recent years, whether against air, surface, or subsurface attack. Moreover, grouping carrier task forces provides synergistic increases in capability -- defensive and offensive. Still, the question of vulnerability remains.

One solution which has been proposed is to build smaller carriers and more of them, thereby dispersing seaborne aircraft so that loss of one platform will not be so critical.



Proponents of the large deck attack carrier respond that vulnerability varies inversely with size and that, more importantly, capability varies directly with size. In this regard, the Royal Navy's main problems in the Falklands centered on the fact that its small carriers could not accommodate early warning aircraft. Moreover, the Harriers' limited numbers and capabilities meant that they could not mount or maintain an adequate defensive umbrella over the British fleet.

Also imbedded in the ongoing debate over the carrier is the issue of satellite ocean surveillance. In the past, it was comparatively easy to "hide" a carrier task group. Some maintain that, today, tracking of such an easily identifiable formation -- and, therefore, its targeting -- is a far less difficult task. Overhead reconnaissance has affected all military forces, particularly fixed installations on land and ground forces with limited maneuvering room. In view of warship mobility -- particularly that of nuclear-powered men-o'-war with their high sustained speed -- the impact of the reconnaissance satellite, while probably less at sea, is still a major unknown.

Finally, it must be recognized that "harm's way" for U.S. naval forces is no longer confined to the North and Norwegian Seas. It seems unlikely that small carriers could survive in the Arabian Sea, the waters off Japan, or perhaps in the South China Sea, given Soviet capabilities in these regions. Moreover, the value of the attack carrier has been repeatedly demonstrated in crises and wars involving the United States

during the past 40 years, contingencies far more likely to confront this nation in the future than a major war with the Soviet Union. A final lesson of the Falklands War is that, in view of the proliferation of smart weapons, these warships will be able to continue operating in other regions where smaller, less-capable carriers increasingly cannot. Thus, it seems fair to conclude that so long as the manned aircraft is relevant to warfare, lack of overseas bases will require the U.S. Navy to take tactical aviation to sea, and the large attack carrier will be indispensable.

#### Soviet Maritime Strategy

During the past four decades, all elements of Soviet sea power have undergone progressive expansion and modernization. Not only does the USSR today possess, numerically, the largest navy in the world, but also the most closely controlled and manipulated merchant marine as well. Moreover, its fishing, oceanographic and space-event support fleets are larger than those of any other nation.

Like its companion armed services, the main mission of the Soviet Navy is to execute "national defense tasks." In the navy's case, they encompass deterrence in peacetime and the following combat functions in wartime:

- Strategic nuclear attacks
- Protection of seaborne strategic forces

- Destruction of enemy naval forces
- Naval blockade or anti-SLOC operations
- Conduct of amphibious assault landings
- Other support of ground force flanks
- Protection of own shipping or pro-SLOC operations

Since overall Soviet strategy, which also governs naval operations, is formulated by the ground-force dominated General Staff, the Navy itself is not a prime mover in setting its own missions and priorities. In each of the Soviet armed forces there has been increased emphasis on the possibility of nonnuclear warfare, evidently driven by a desire to avoid nuclear attacks on the Soviet homeland as well as against Warsaw Pact forces operating against NATO. Having achieved -- in its perception -- strategic nuclear parity or better, Moscow has clearly gained a sense of assurance that it can deter such Western use in the event of war. The remarkable buildup of Soviet conventional forces -- air, ground, and naval -- suggests that Moscow would seek to achieve its war aims without resorting to nuclear weapons or incurring substantial risk of their use by NATO. Nevertheless, the Soviet Navy, like its counterpart services, has clearly exhibited a readiness to fight in nuclear and conventional, as well as in chemical-biological, environments.

The prime wartime mission of the Soviet Navy is strategic assault, not only on the United States but on its West European allies as well. Protection of the strategic submarine force is

clearly the second priority. The Delta and Typhoon ballistic missile submarines, along with the SS-N-8, 18, and 20 sea-launched missiles (all with 4000-5000 statute mile ranges), provide the USSR the option of utilizing close-in sanctuaries for safeguarding the sea-based leg of its strategic nuclear arsenal. Within cover of land-based air and coastal naval forces, these new SSBNs -- whether operating off the Kola or Kamchatka Peninsulas -- are less vulnerable to antisubmarine attack than were their Yankee-class predecessors which had to deploy to mid-ocean patrol stations. Apparently, the Typhoon-class submarines are designed to operate under the ice for weapons launch, satellite navigation, and communications. As Admiral James Watkins, the Chief of Naval Operations, has suggested: "The Soviet Union will probably keep its SSBN force under the ice as a secure strategic reserve, a war-terminating bargaining chip, and the ultimate 'ace in the hole'."

The trade-off would be elimination of the short flight-time, low trajectory flight paths provided by the Yankees from their normal mid-Atlantic launch points. This capability was of special concern to Washington with respect to attacks on U.S. bomber and naval bases as well as American command and control centers. This option is still available through deployment of SSBNs -- remaining Yankees (23), probably now assigned theater missions, or newer classes -- to mid-ocean patrol stations. The shift to longer-range missiles has also released many ocean-going warships and submarines, heretofore

believed devoted in wartime to transit and open-ocean protection of Soviet SSBNs, for use in executing other naval tasks. A large proportion of the fleet's surface ships, submarines, and aircraft probably will be retained in the so-called inner zone where the USSR would expect to control the ocean's surface and the air space above. These forces would be deployed in a layered defense to protect not only the SSBNs but the Soviet homeland itself, particularly the Kola Peninsula basing complex. Direction of the SSBN force would be in the hands of the Supreme High Command and its General Staff.

The various fleets most likely will be controlled by a wartime command organization which will supplant the current peacetime structure. Overall direction of naval operations will be provided by the Supreme High Command (Stavka) via its executive organ, the Soviet General Staff, operations taking place in a series of "theaters of military operations" (TVDs). It appears that the Soviet Union has divided the Eurasian landmass and its adjacent waters into six continental, six maritime, and three ocean TVDs. Depending on their assigned missions, various units of the Northern Fleet -- excluding SSBNs -- would be controlled by the Northwestern, the Atlantic, or Arctic TVD commanders. Baltic Fleet units would come under the command of the Western TVD while the Black Sea Fleet would be controlled by the Southwestern TVD.

In a NATO-Warsaw Pact conflict, the Alliance's vulnerable flanks presumably would constitute prime foci for Soviet

military planners. To the north, Norway, Iceland, and the Baltic would be principal objectives. Inferred Soviet aims -- not necessarily in order of importance -- would be:

- Protection of SSBN sanctuaries and operating areas
- Defending against U.S. carrier and cruise missile strikes at Kola bases
- Gaining access to Norwegian airfields and harbors
- Denial of such access to NATO
- Obtaining free passage of Soviet warships to the Atlantic
- Neutralization or seizure of Iceland
- Interdiction of SLOCs from North America
- Prevention of NATO incursions into the Baltic
- Control of the Danish Straits
- Amphibious assaults against the Northern Army Group (NORTHAG) sector of NATO's Central Front

To carry out these tasks, Moscow would rely on all of its armed services, including its navy. The Northern is the most formidable of the four Soviet fleets comprising 392 surface warships and submarines, together with 440 combat aircraft. The fleet's relatively small amphibious component could be assisted in the seizure of North Norway by 28,000 army troops believed to be stationed on the Kola Peninsula (two motorized rifle divisions) and subordinate to 6th Army Headquarters at Petrozavodsk, as well as some of the six motorized rifle divisions and the former 13th tactical air force reportedly under the Leningrad Military District.

The Soviet Union would confront difficult problems of overland access in any attempt to seize the region between Hammerfest and Bodo. Road and rail lines throughout the Finmark area are sparse and militarily inadequate. This leaves but two options: airborne assault and seaborne landings. For optimum assurance of success, both would likely be employed in a closely coordinated operation backed by air support from naval and frontal aviation. Should the area be conquered, the inadequacies of the rail and road network suggest that lodgements could only be logistically sustained by seaborne supply. The importance of NATO control of the Norwegian Sea and Norway's coastal waters is thus evident. Whether to defend against Soviet incursions or to neutralize gains made in the event they were successful, Allied sea power -- particularly carrier air, cruise missiles, and submarines -- would be indispensable. Once established in northern Norway, Soviet forces could more effectively defend the bases of its northern fleet. More importantly, ships, submarines, and long-range aircraft -- Backfires and Blackjacks -- would be in a far better position to interdict the sea lanes crossing the North Atlantic, particularly those bearing reinforcements and supplies to Western Europe. Finally, a follow-on Soviet drive southward would threaten to link up with forces in the Baltic, thereby generating increased perils to the northern flank of NATO's Central Front.. The relatively larger

amphibious forces available to the Warsaw Pact in the Baltic would be used not only to assault the northern flank of the Central Front but also to attack Denmark with the objective of gaining control of the Danish Straits.<sup>5</sup> The persistent probing of Swedish territorial waters by Soviet submarines may not be unrelated to this important dimension of Soviet strategy. To accomplish its tasks, the Baltic fleet has been assigned 423 warships and 270 combat aircraft. With the addition of amphibious assets from Poland and East Germany, the amphibious capability in this TVD is the most potent of all Soviet fleets. As is the case with the Northern Fleet, the Baltic would be augmented by the USSR's other armed forces, particularly frontal aviation providing air cover for naval bases and sea missions.

On the Southern Flank, three possible scenarios with strong maritime implications present themselves. The first two feature "out-of-NATO" contingencies that will not be considered in this discussion: Soviet intervention in Yugoslavia, and a U.S.-USSR confrontation arising out of events in the Middle East. In a military conflict involving NATO-Europe, control of the Turkish Straits would certainly be a prime Soviet objective. Moscow's major aim would be to provide the Soviet Black Sea Fleet with open access to the Eastern Mediterranean. Amphibious and air attacks would probably be mounted on Turkey itself and on Turkish and Greek Thrace. The Black Sea Fleet has been allocated 413



warships of all categories and 435 combat aircraft. As in other TVDs, the Black Sea Fleet would support and be supported by other elements of the Soviet armed forces. On this flank, Soviet political and military penetration of Syria and Libya represents a strategic asset of considerable importance. Soviet submarines and aircraft deployed to and operating from Syria and Libya could generate severe maritime threats to NATO in the eastern and central regions of the Mediterranean.

Western Europe and the United States are heavily reliant upon natural resources from the Third World, particularly petroleum as well as strategic minerals and metals.<sup>6</sup> The Soviet Union, therefore, is as likely to use sizable fractions of its vast submarine fleet -- in the South Atlantic and Indian Oceans -- to interdict the flow of such materials as it is to employ other submarines to attack shipping carrying military reinforcements and supplies from North American to Western Europe. Moreover, such distant threats to NATO are not limited to the sea lanes of the globe's major oceans. The Caribbean Basin provides an example. From the Gulf of Mexico through two maritime passages -- the Straits of Florida and the Yucatan Channel -- flows 60 percent of all U.S. imports and exports for the eastern half of the United States. Moreover, more than 40 percent of the reinforcements and military supplies destined for Western Europe -- in the event of war -- would depart

from U.S. Gulf ports. Soviet or surrogate forces operating from Cuba, Nicaragua -- and elsewhere around the Caribbean littoral should the revolution in Nicaragua spread -- could endanger all the foregoing maritime traffic. In time of war, Moscow is not likely to ignore such vulnerabilities.

NATO's Flanks and the  
Central Front--General

A Warsaw Pact attacks against NATO's Central Front could be expected also to involve assaults on the Northern and Southern Flanks. Aggression on one of the flanks, however, might not immediately escalate to the Central Front. This is especially true on the Northern Flank, where geographical factors, patterns of military deployments, and political-historical considerations render the Scandinavian countries peculiarly vulnerable to Soviet psychopolitical pressure. Indeed, Scandinavian officials and NATO planners have long feared that the military weaknesses of the Northern Flank might someday tempt Moscow to initiate a carefully circumscribed and limitable military operation to seize control of the North Cape region. Similar Soviet temptations on the Southern Flank derive from somewhat different circumstances. The marathon Greek-Turkish dispute over Cyprus and the Aegean Sea continues to paralyze concerted NATO preparations to defend the region. This intractable split within NATO ranks is exacerbated by the

by this deep-rooted confrontation. Although the disputants may ultimately manage to compromise their differences over Cyprus, deep suspicions are bound to linger with respect to the Aegean.

Greece and Turkey will remain targets of Soviet pressure focused against their providing any support to U.S. RDF or other NATO-nation operations in the Middle East. Greece's 1973 pro-Arab posture and Turkey's basic Islamic nature (notwithstanding the secular nature of that republic) will be more significant during any Arab-Israeli conflict than they would be in an intra-Arab war or revolution. The growth of Soviet air and intermediate-range missile power, combined with NATO's existing air defense gap throughout the Greek-Turkish sector, might well produce a further drift toward neutralism on the southeastern flank of the Alliance.

#### Technological Trends

Joint research and development in air defense and support, in naval and antisubmarine warfare, and in other military fields of special interest for Mediterranean security is the focus of increasing attention among NATO countries on the Southern Flank. Recent development of weapon systems -- accurate long-range, antiship cruise missiles deployed on small, high-speed platforms; sophisticated airborne reconnaissance and early warning systems; ocean surveillance satellites linked to ASW sensors afloat or undersea; and nonmetallic mine warfare ships --

South-South Relations

At the western end of the Mediterranean, disagreements continue between Portugal and Spain over trade and fisheries, as well as over the divisive issue of the command structure for the Iberian Peninsula area. Spain seeks creation of a new, separate Iberian Command, including the Canary and Balearic Islands, subordinate to either SACEUR or AFSOUTH. Portugal is now in the Iberian Command Atlantic (IBERLANT) under SACLANT and remains Atlantic-oriented insofar as naval missions are concerned. Lisbon opposes establishment of a "fourth NATO command," particularly one which would place Portuguese territory and waters under a command which Spain would probably dominate and shift from an Atlantic to basically a Mediterranean/Maghreb focus. Portuguese concerns stem from historic fears of its larger neighbor and the Spanish-Moroccan controversy over the Ceuta and Melilla enclaves.

At the opposite end of the Mediterranean, the previously cited Greek-Turkish dispute has long weakened NATO's political cohesiveness and defense posture. Militarization of the Greek islands in the Aegean -- directed not at the USSR but Turkey -- the establishment of Flight Information Regions, disputes over territorial waters and the continental shelf, and the nonparticipation of Greece in NATO Aegean naval maneuvers, all have been spawned

### North-South Relations

Western Europe has sought, with limited success, to reduce its dependence upon Middle East oil by diversifying geographic sources of supply and by developing alternatives such as solar and nuclear power. To reduce net oil import costs, France, Italy, and West Germany have increased their export trade to the countries of North Africa and the Middle East. States such as Libya, disproportionately ambitious and imprudently adventurist, may pose threats -- not directly (for they are politically impotent and militarily weak) -- but rather as possible staging areas and logistic bases for Soviet forces. It is unrealistic not to assume that, in wartime, Moscow would not call the debts owed by arms and aid recipients around the Mediterranean precisely as it already has in Cuba, Angola, and Vietnam.

Destabilization in portions of the regime results from various forms of international terrorism, some of which are undoubtedly supported by radical Islamic governments (e.g., Libya and Iran). It also seems likely that aid and encouragement come from some Warsaw Pact countries. Mediterranean members of NATO will have to devise a common political-military approach toward normalizing Libyan behavior and preserving the neutrality of Malta (formalized in a 1980 treaty with Italy) to prevent that island from becoming a logistic and intelligence outpost for the SOVMEDRON.

The land balance of the Southern Flank is substantially less favorable to NATO, especially in northern Greece and in Thracian as well as eastern Turkey. There is a particular need to strengthen Turkish and Greek air defense networks, operating under NATO auspices, which provide the basic means to the West to collect intelligence and organize a conventional deterrent along the Aegean gateways to critical Mediterranean and Middle Eastern SLOCs. Indeed, NATO's maritime surveillance and communications capabilities could be irreparably harmed if Turkey or Greece were to withdraw from the Alliance. In the absence of improved Turkish and Greek air defenses (e.g., the Patriot system), maritime forces -- especially carriers and surface ships armed with SLCMs -- might be employed to plug the air defense gap. Furthermore, deployment of NATO airborne early warning aircraft (AWACs) to western Turkey could enhance land as well as naval air defense capabilities.

Nevertheless, the situation in the Mediterranean remains relatively calm, and deterrence of Soviet military power has seemed effective. Moscow, while steadily upgrading its nuclear and conventional capabilities, apparently prefers at present to rely on diplomatic and economic blandishments to create fissures in NATO solidarity. The political shadow of Soviet military power is bound to lengthen, however, if NATO does not initiate corrective measures.

the treaty area. Consequently, three lines of international cleavage cross in the Mediterranean theater: East-West, North-South, and South-South.

#### East-West Relations

The growth of Soviet influence and activity is reflected in:

- The deployment of SS-20s which can reach not only Western Europe but the Mediterranean and the Middle East;
- The activities of the Soviet Mediterranean Squadron (SOVMEDRON) which averages 40-50 surface ships and submarines;
- The upgrading of Soviet air power projection: TU-22M Backfires, MiG-9 Fulcrums, and SU-27 Flankers (all of which can eventually be fitted with cruise missiles);
- The growth -- albeit modest -- in Soviet amphibious capabilities; and
- Continued pre-positioning of Soviet arms and war material at key forward locations (i.e., Syria, Libya, and perhaps, for some items, Malta).

NATO's present naval/air force superiority in the Mediterranean Sea has, theoretically, been augmented by addition of the Spanish Fleet to those of France and Italy (even though Spain remains, like France, outside the integrated military command structure). On the other hand, unremitting Greek-Turkish enmity continues to sap the strength of the Alliance's deterrence posture in and around the Eastern Mediterranean.

- It should be noted, nevertheless, that there never was a well-defined "NATO defense line" in the maritime region of the Northern Flank. Regardless of what NATO strategy may be, the purely mental establishment of such a boundary at sea is strategically and politically unwise. If the Soviet Union believed that one existed, it could assume a free rein north of that line. If the Norwegians believed it, they would have sound reasons for deep anxiety. A prime means of minimizing such dangers is frequent deployment of U.S. carrier task forces to the Norwegian Sea.

Finally, a major command and control problem exists on this Flank. German, Danish, and Norwegian naval forces are committed to SACEUR while British, Belgian, and Dutch forces are committed either to SACLANT or the Commander in Chief Channel (CINCCHAN). All three major NATO commanders -- SACEUR, SACLANT, and CINCCHAN -- have been assigned water areas in the North Sea. A North Sea Agreement, designed to overcome these difficulties, is seldom invoked and procedurally difficult to use. Maritime command and control in this region should be resolved and exercised in peacetime to preclude fractionating NATO's naval assets in wartime when their relative weakness will demand concentration and close unified control.

#### The Southern Flank

Because of geostrategic changes in the last ten years, NATO's center of gravity has shifted somewhat southward, and some of its vital interests now lie outside



Sea before he could position NATO naval power to prevent it. He would then be compelled to adopt a "roll-back" strategy to regain control of that vital Sea, as well as to preserve Allied domination of the North Sea. Four points should be kept in mind with respect to northward movement of the defensive line:

- Such a shift, while signalling a readiness to launch a tactical offensive if the Pact initiates war, should be explained to NATO in terms compatible with the defensive ethos and strategy of the Atlantic Alliance. Otherwise, political resistance in Allied countries could be severe.
- Any move to the north, moreover, should be carried out gradually and cautiously, in such a way as to preserve the relative invulnerability of NATO platforms while avoiding unnecessarily provocative movements that could be viewed by the Soviet Union as unacceptable threats to the naval/air complex in the Kola region where the Soviets are almost pathologically sensitive.
- Planning for northward movement and wartime operations should be done in such a way as to enhance NATO's capabilities for waging war without raising the risk of uncontrollable escalation across the nuclear threshold. If NATO is to retain and make more flexible the value of threatened early use of nuclear weapons, it may be necessary to develop a more effective array of conventional options. More importantly, adjustments in Allied naval strategy and deployment (especially with regard to flank defense) may be particularly attractive, since they would be considerably less visible and, politically, less intrusive than the offense-oriented AirLand Battle concept espoused by enthusiasts for NATO ground forces stationed on the Central Front. Moreover, such changes in NATO's naval posture would be particularly well-suited to the threats on the Northern Flank.

necessary missions simultaneously, or even perform optimally all the tasks that strategists would impose upon them, they must carefully define their priorities.

- Their most urgent task is to prevent the Soviet Navy from gaining a commanding position in the Atlantic. They must, therefore, exert mastery over the Norwegian-North Sea complex, for whoever dominates it will be able to fire ballistic or cruise missiles at shorter range toward North America or the Kola area, and either protect or disrupt NATO shipping.
- Predominance in the Baltic Sea is also important, for quite apart from the contribution which the Baltic Fleet can make to the Battle of the Atlantic if it breaks out, this Sea will witness Warsaw Pact amphibious landing efforts -- supported by airborne and OMG elements -- designed to outflank and envelop the Central Front.
- The air base complex in North Norway, as well as that near Keflavik in Iceland, needs better protection, for they both must be overcome if the Soviet Northern Fleet ever hopes to operate freely in the Norwegian Sea.
- NATO navies must also prevent the Baltic Fleet and other Warsaw Pact forces from gaining control of the Danish Straits. Within the Baltic area, allied defenses against Pact mining, ASW, sabotage and air strikes must be strengthened.

Moving NATO's maritime defense line northward from the GIUK Gap into the Norwegian Sea, closer to the sources of Soviet naval/air power, has been discussed in recent years. In this regard, the Supreme Allied Commander Atlantic (SACLANT) is concerned that tardy (Reinforced Alert) assignment of Allied naval forces to his command might allow the Soviets to seize control of the Norwegian

internal opposition. There is, however, popular support for joint air and naval exercises in the Norwegian Sea, as well as for pre-positioning of U.S. equipment and supplies for U.S. forces which would probably be deployed in wartime.

West European naval forces on the Northern Flank are not insignificant.<sup>8</sup> Excluding U.S. forces, NATO maritime capabilities include those not only of Norway, Denmark, and West Germany, but also of Britain, the Netherlands, and Belgium (the last three intensely concerned about the North Sea). Although sizable, they are not a match for Pact forces they confront. Only the U.S. Navy can counterbalance the Northern Fleet in peacetime as well as in wartime. In the Baltic and the North Seas, West European navies can be expected to give a good account of themselves in missions for which they have been designed -- ASW, mining and mine countermeasures (to which the U.S. Navy has hitherto paid relatively little attention). These countries are also prepared to resist Soviet amphibious landings with submarines, fast torpedo and missile boats, along with helicopters and missile-carrying aircraft. The Norwegian as well as Swedish and, to a much lesser extent, Danish navies, in conjunction with air forces, can offer reasonable opposition to invasion. Britain and West Germany possess more extensive defenses as well as considerable capabilities for reconnaissance, peacetime pressure, and high seas operations. Since NATO naval forces cannot undertake all

Scandinavia. A Norwegian sense of military and political isolation has intensified. Finland and Sweden, concerned for their neutrality and to discourage expanded Norwegian cooperation with NATO -- in ways likely to provoke Soviet paranoia over the Kola area -- have stationed some additional ground and air forces in the north. Sweden, however, generally prefers to emphasize a naval/air strategy oriented southward toward the Baltic over a ground/air strategy aimed northward. Numerous Soviet submarine violations of Swedish sovereignty over many years, as well as the 1984 airspace intrusion over Gotland, have angered the Swedes. They speculate about Soviet intentions, which appear to be aimed at frightening Sweden into remaining neutral in wartime, even though the result at present seems politically counterproductive for Moscow.

Norway has a 150-mile border with the USSR, where a few hundred Norwegian border guards at Kirkenes face powerful Soviet forces. Understandably, Norway constantly stresses the need for a NATO highly mobile reinforcement and amphibious capability which can move quickly to the defense of its northern territory. Some elements of the Norwegian population, failing to understand how vital this issue is, object -- especially during election campaigns -- to any introduction of non-Norwegian troops. It would be unwise to press for the permanent stationing of foreign forces in Norway because they would surely become a target for

full control of military movements on the Soviet side of the North Cape which might be seen in Moscow as provocative. During the last ten years, the Scandinavians have been subjected to a barrage of Soviet political and military actions intended to harass or frighten them, increase their sense of isolation from the Western Alliance and condition them to a posture of compliant, pro-Soviet neutrality.

These actions include:

- Aggressive tactics in Soviet-Norwegian negotiations over fishing rights and continental shelf oil.
- Demands for the neutralization of the Nordic Region and the demilitarization of the Norwegian-Soviet border.
- Flagrant Soviet violations of Norwegian sovereignty over the island of Svalbard (Spitzbergen).
- Frequent protests from Moscow to Oslo and Copenhagen for cooperating in "provocative" NATO activities.
- Intensive and highly visible Soviet/Warsaw Pact naval exercises in the Baltic, North and Norwegian Seas.
- Soviet submarine probes of the Norwegian fjords and the Swedish naval base at Karlskrona, well within the territorial waters of those countries;<sup>7</sup> the overflight of Swedish Gotland by a Soviet military aircraft in 1984; and the violation of Finnish and Norwegian airspace by a runaway cruise missile fired from a Soviet submarine or ship on Barents Sea maneuvers early in 1985.

Within recent years, the trends toward neutralism, antinuclearism and pacifism have increased throughout

significance in the Soviet Union's strategy. Included in their concern over deterrence is the relative absence of a meaningful, routine U.S. naval presence in waters of the Norwegian Sea. Some believe that frequent deployment of an American carrier battle group to the region would go far toward countering the impression that the spectacular growth of the Soviet Navy in general, and the Northern Fleet in particular, has shifted the naval balance in the Norwegian Sea to the Soviet Union. They see the USSR with greater ability to project power into the area while that of the United States has decreased and believe that periodic, well publicized appearances of such battle groups would offset such Soviet gains and shore up conventional deterrence. It is argued that forward deployments give an unmistakable credibility as well as increased capability to the participation of the United States in the defense of Allied territory.

After an abortive postwar attempt to create a Northern defense bloc, there has emerged through a combination of alliance and neutrality an informal and delicate "Northern balance." Sweden's armed neutrality helps to safeguard Finland's integrity. Denmark and Norway allow no foreign bases and no nuclear arms stored on their territory in peacetime. Norway permits no non-Norwegian warships to dock and no non-Norwegian military aircraft to land east of 24 degrees East without special permission, thus maintaining

maintaining an adequate balance of naval and naval air power on the flanks (and especially in the north), where a balance is much harder to achieve), will have generally stabilizing effects, reducing Soviet risk-taking propensity in the north and providing a conflict-control capability against a variety of actors in the south.

#### The Northern Flank

NATO's Northern Flank is formally defined as the Allied Command Europe (ACE) Northern Command, including Denmark, Norway, and Germany roughly north of the Elbe River, as well as the coastal waters of these countries. The area is vast and has a variety of weathers, most of them adverse. (For a detailed description of the region, see General H. F. Zeiner Gundersen's "The Northern Flank" in Volume II.)

The three NATO members, Denmark, Iceland, and Norway, and the two neutrals, Finland and Sweden, shared through much of their history a common cultural, political, and religious (Lutheran) tradition. That history has included numerous conflicts among these states, but recent years have evidenced growing cohesiveness. The latter factor derives from perceptions of their collective weakness in the face of great power rivalries which they have tried to avoid. Their outlook in recent decades has been divergent and ambiguous, however, because the Nordic area has clearly taken on new

relative obsolescence of the Greek and Turkish armed forces -- large though they are -- when compared to those of other NATO countries and, particularly, to those of the USSR and its Warsaw Pact allies.

So, too, the principal problems compounding the difficulties of NATO planning at the eastern and western ends of the Mediterranean are more politically internal to the Alliance, even though the Soviet Union can be expected to foment additional difficulties wherever possible. Moreover, the Southern Flank's contiguous zones in North Africa and the Middle East harbor myriad local instabilities and resurgent regional rivalries that can burst into open warfare. Resulting armed conflicts could jeopardize vital NATO interests, such as access to oil, movement of Allied naval and merchant vessels, and control of key maritime choke points.

Both the Northern and Southern Flanks of NATO have become increasingly important in deterrence and defense planning. They are no longer seen as marginal, but have been receiving steadily greater attention for a number of reasons: (1) NATO's adoption of Flexible Response, (2) the buildup of the Kola base area and the Soviet SSBN fleet, (3) the importance of energy resources under the northern seas, (4) the continuing dependence of most NATO countries on Persian Gulf oil, and (5) the persistent political problems in the Mediterranean basin. It is recognized that



have brought about significant changes in operational capabilities. One consequence has effectively been "shrinking" of the Mediterranean Sea where detection, deployment and engagement of military forces can occur more quickly. Despite progress in electronic warfare (ECM and ECCM), larger ships and even powerful naval forces have become vulnerable to surprise attack by small, lethally armed craft and shore-based cruise missiles affordable by less developed Mediterranean and Middle Eastern countries. Finally, proliferation of light but effective air and naval weapons systems among the riparian states has reduced considerably the freedom of action formerly enjoyed by NATO navies in the Mediterranean, and increased the risk of military engagements in any regional political crisis. Yet, so far, this diffusion of military power among the smaller states is restricted largely to lower intensity combat capabilities for use in limited crises.

Conflict Scenarios and  
Allied Readiness

Are NATO countries today more willing than in 1973 to cope with contingencies in the Mediterranean and the Middle East? When the Iran-Iraq War threatened oil tankers transiting the Strait of Hormuz, the United States, France and Britain loosely cooperated to protect this traffic. Italy joined the aforementioned nations when they subsequently moved to neutralize the covert mining of the

Red Sea. Beyond such contingencies, however, it is difficult to envision either Alliance or multilateral action by NATO nations to counter threats materializing outside Alliance boundaries.

In some future Arab-Israeli war, most European allies, fearing another oil embargo, might again refuse logistical support for U.S. efforts to send aid to Israel. Other scenarios include potential conflicts between moderate and radical Arab states or a revolution in Saudi Arabia. In these cases, the European allies would be more likely to support forces of the U.S. Central Command (CENTCOM). In future out-of-area crises, however, the West Europeans can be expected to behave more cautiously than the United States, because of their dependence on oil, and they are likely to prefer political and economic pressures over military means for a longer time.

More serious would be a Soviet attack upon the weakest spot on NATO's Southern Flank, the Greek-Turkish sector, through any of several possible avenues: The Gorizia Gap in Italy; Yugoslavia and perhaps Austria; the Thracian and Bosphorus region; Bulgaria and the Black Sea; and Turkey's northeastern border.

Turkey, in particular, remains a critical Western security concern, as it abuts the USSR's southern border and lies adjacent to Syria, Iraq, and Iran -- key states in Southwest Asia. If Turkey and the Turkish Straits were

controlled by the Soviet Union, the Warsaw Pact might be able to pose a continuous military threat to Western Europe from the Kola Peninsula in the north to the Mediterranean-Aegean region in the south with the potential to choke off allied access to both the Atlantic and the Mediterranean/Red Sea SLOCs.

Based on this assessment of Southern Flank contingencies, Allied wartime planning would require the following:

- Deployment of at least two U.S. carrier task forces to the Eastern Mediterranean to neutralize SOVMEDRON, and aid in eliminating Soviet air and naval bases as well as closing the Turkish Straits.
- Deployment of Italian, French, Spanish and other allied naval forces to the Central Mediterranean to guard the Sixth Fleet rear against attacks from Soviet units already in place or possibly operating from advance staging areas, to protect Mediterranean SLOCs, and to counter hostile actions by non-NATO riparian states.
- Closer naval planning among the allies is required if such a division of labor is to be achieved. The future disposition of French and Spanish forces, for example, remains unclear, given the decision of Paris and Madrid to remain outside NATO's integrated military command.
- All of NATO's Mediterranean navies are in urgent need of modernization and expansion if they are to be able to protect naval convoys and coastal areas. At present, most are only capable of limited operations in not-too-distant waters.

In addition, specific steps to improve Mediterranean security would include:

- Employment of emerging technologies, and coordination of defense industrial activities, by allied and friendly countries to upgrade the Western defense posture.
- Development of East-West confidence-building measures (advance notice of significant military movements, exchange of observers for major exercises, meetings between NATO and Warsaw Pact military leaders as suggested by SACEUR, etc.).
- Improvement of NATO/Western conventional deterrence and conflict management capabilities by coordinating national rapid deployment forces and contingency plans for out-of-area action, and by transforming the Naval On-Call Force Mediterranean (NAVOCFORMED) into a permanent force. This can only be done after command and control problems in the Aegean are solved.
- More effective organization and preparation of multinational peacekeeping missions. This could include creation of a standing committee in NATO for allied consultation on the conduct and impact of special operations by allied forces, both in "out-of-area" theaters and along NATO's flanks.

All of these recommendations require initiatives from governments, not NATO planners. NATO maritime planners, however, can remind political leaders of the contributions which such initiatives could make to Western security.

#### French Maritime Strategy

Unswayed by antinuclear advocates, France maintains a consensus on defense based on nuclear deterrence. France has adopted a strategy of external action designed to protect its overseas interests. In the French perspective, principal threats derive from Soviet power which renders

Western Europe uniquely vulnerable to selective blackmail and alienation from the United States.

Moreover, mutual deterrence is seen as shifting the focus of ongoing East-West confrontations to the Third World. There, backed by Soviet naval and air deployments together with arms aid, Moscow is pursuing an increasingly aggressive campaign. In Paris, the Soviet design is viewed as more political than military, more cautious than reckless, but the belief is that indigenous Third World movements offer innumerable opportunities to erode Western security. For deterrence, France increasingly relies on sea-based forces -- six nuclear submarines with a total of 176 single SLBM warheads and, by the early 1990s, 496 multiple warheads. France has not yet decided whether to develop a long-range cruise missile or to employ neutron warheads.

Its navy consists of 125 combat ships, including 2 aircraft carriers, 1 helicopter carrier, 20 attack submarines, and over 200 carrier- or shore-based aircraft. Neither attack submarines nor surface ships (except for aircraft carriers) carry nuclear weapons, but they are equipped with the Exocet cruise missile. France can be expected to maintain her network of overseas bases, modernize her conventional forces, and complete creation of a multipurpose, rapid action force (FAR).

In the nuclear weapons area, French deterrent strategy has something in common with the concept of mutually assured destruction, in that it threatens cities and probably economic and administrative targets as well. Such a strategy can be credible only when vital national interests are at stake. Tactical nuclear weapons (ground- and air-launched or dropped) would be employed in a single strike, linked to the maneuver of the air-land battle corps, as an "ultimate warning" prior to use of strategic nuclear weapons. France does not accept "no-first-use" doctrines.

France will rely in the first instance upon political, diplomatic, economic, and social means of preserving her Overseas Departments and Territories, as well as interests in former colonies and friendly states in the Third World. This will likely require the evident capacity to invoke military force as a foundation for effective diplomacy. The French strategy of external action, therefore, provides for technical military assistance and the transfer of weapons to some thirty Third World states, including equipment for the Pakistani Navy and a "turnkey" fleet to Saudi Arabia. (Most transfers, however, involve airborne rather than naval weapons.) France's main interests are in the Mediterranean, Africa, the Indian Ocean, the South Pacific and Caribbean regions. Her permanent military forces overseas number 30,000, supported by aircraft carriers, amphibious ships, specialized

commandos, and mobile logistics. To supplement its "naval diplomacy," France is considering the acquisition of the U.S. AWACs.

France recognizes that foreign military intervention must be quick and prepared in secret, related to available means, strictly limited as to objective and duration, and closely controlled at the highest political echelons. Recent examples include Chad, Lebanon, and the mine-hunting operation in the Gulf of Suez and the Red Sea. All of these operations were undertaken at the request of the governments concerned. While Paris concentrates its most powerful conventional naval forces -- two carriers and most of its modern attack submarines -- in the Mediterranean, it clearly has major interests in the Atlantic and its approaches to metropolitan France.

French and NATO commands cooperate, but there are problems (e.g., on NATO use of French facilities) because France prefers to rely primarily upon nuclear rather than upon conventional deterrence, believing the notion of conventional deterrence to be misguided. While advocating "Europeanization" of West European defense (without U.S. disengagement) and reinforcement of Franco-German complementary in armaments and strategy, France declines to give formal guarantees to her neighbors. Nevertheless, French governments have consistently favored tacit cooperation with Allied and national commands. Staff talks

have been conducted and informal agreements concluded between various such commands -- European and out-of-area -- to lay the groundwork for wartime cooperation. Still, France does not view formal arrangements as either necessary or desirable.

Sea-Launched Cruise  
Missiles (SLCMS)

As reflected in the foregoing discussion of sea power's role in defense of Western Europe, the contribution which naval forces can make to land campaigns should be a prime consideration. Heretofore, such action has been restricted to amphibious assaults, limited-range shore bombardment by ships' guns, and longer-range attacks by carrier-based aircraft.

Rapid advances in technology, however, have now added a new weapon to the naval arsenal, one which holds great promise for use in land attacks, particularly at greater distances than those previously achievable from seaborne platforms. That weapon is the cruise missile. Its versatility and growth potential suggest that it could eventually become the prime weapon system of major navies, just as it already is in smaller fleets around the globe.

In view of the maritime nature of Western access to NATO's flanks, cruise missiles appear to offer especially important advantages. As targeting techniques and missile



capability improve, an even broader spectrum of uses is bound to emerge. At the same time, it should be recognized that Allied defenses against Soviet cruise missiles will become increasingly important, for such weapons -- launched from submarines -- could pose serious new threats to the Alliance's flanks.

Insofar as NATO exploitation of this new technology is concerned, the U.S. Navy is leading the way with development and deployment of the Tomahawk sea-launched cruise missile (SLCM). Present plans call for SLCM deployment on a variety of surface ships and submarines in nuclear land attack (TLAM-N), conventional land attack (TLAM-C), and antiship (TASM) variants.<sup>9</sup> Tomahawk provides the U.S. Navy and NATO with a dual-capable system that is highly survivable (especially in submarines), difficult and costly to defend against, extremely accurate, and relatively inexpensive to develop and manufacture.

Once deployment is complete in the mid-1990s, the U.S. Fleet's striking power, against targets ashore and at sea, will be significantly enhanced. Moreover, it will be dispersed among numerous men-o'-war as contrasted to current concentration in carrier battle groups. Consequently, Soviet military planning will be complicated because each SLCM-armed ship will have to be considered a potential nuclear threat, there being no easy way -- barring on-site inspection -- to distinguish between conventional and nuclear versions of the missile.

Critics point to this similarity between nuclear and nonnuclear SLCMs as destabilizing because it will likely be almost impossible to reach agreement on mutually acceptable verification procedures. The mere existence of nuclear-capable Tomahawks -- indistinguishable from conventional versions -- opponents argue, will probably foster greater Soviet targeting of the U.S. Fleet, thereby increasing its susceptibility to nuclear attack. The charge is also made that by assigning nuclear strike missions to a substantial number of the Navy's attack submarines, the antisubmarine warfare (ASW) capability of SSNs will be degraded, rendering the fleet as a whole still more vulnerable to Soviet submarine attack. SLCM opponents also claim that TLAM-Ns -- given their range (1,500 nautical miles) and accuracy -- might be employed in a first-strike. Finally, it is asserted that the nuclear Tomahawk's low collateral damage characteristics make selective targeting and limited nuclear war options more credible and, therefore, increase the likelihood that it would be used.

Tomahawk proponents respond that:

- The Soviet Navy is deploying a new generation of land-attack--capable nuclear cruise missiles -- notably the SS-N-12 and the SS-NX-21 -- against which the TLAM-N is a necessary counter.
- By dispersing the Navy's nuclear arsenal over a larger number and greater variety of platforms, SLCMs would make the Soviet targeting task infinitely more complicated and uncertain, lessening the incentives for a disarming first-strike.

- SSNs actually equipped with TLAM-Ns will provide a hedge against any Soviet breakthroughs in ASW that might place the U.S. SSBN force at high risk, and against the possible discovery in later years of any design or functional flaw in the Poseidon and Trident systems.
- While the TLAM-N can achieve accuracies comparable to the Trident II D-5 missile, it is far too slow -- and will not be available in sufficient numbers -- to be considered seriously as a first strike weapon.

Given its inherent flexibility and survivability, the TLAM-N, and most especially the submarine-launched version, can only serve to strengthen nuclear deterrence and strategic stability. Additionally, by providing the Navy with a survivable nuclear option, one not posing a first-strike threat, the submarine-based TLAM-N represents a secondary theater deterrent which is not SIOP-dedicated. At the same time, it will improve NATO's ability to confront Warsaw Pact forces with the threat of a precise, yet selective nuclear response, while maintaining an escalation threat option.

The ultimate test of the TLAM-N's military utility (and, for that matter, of all SLCMs) lies in its capacity to hold at risk -- and, if need by, destroy -- targets of value to the Warsaw Pact. Most likely TLAM-N targets seem to be concentrated in Eastern Europe, in the northwestern and western portions of the Soviet Union and on the Kola Peninsula. Partly for this reason, TLAM-N probably will have a more direct impact on deterrence and forward defense

operations on NATO's flanks than on the Central Front. Some employment options in the north would be to:

- Threaten intermediate-range ballistic missile (IRBM) fields in the Baltic Republics, and major Baltic Fleet ports, including fleet headquarters at Baltiysk and the Soviet SSBN port at Liepaja.
- Attack -- from SSNs -- home port facilities and naval airbases of the Northern Fleet, including fleet headquarters at Severomorsk and the SSBN base at Polyarny.

The best TLAM-N platforms on NATO's Northern Flank would be SSNs since they almost certainly would be better able to survive in the forward launch positions needed to reach the targets described. Yet, if cruisers and destroyers can get close enough to the northern coast of Norway, they, too, could pose a substantial threat to the Kola complex.

On NATO's Southern Flank, surface ships and submarines would enjoy a less hostile environment and a broader array of accessible targets. Examples might include Black Sea Fleet headquarters at Sevastopol, naval ports at Odessa, Balakava, Novorossiysk, and Poti, Black Sea Fleet naval air bases, and perhaps even the SS-10 and SS-20 bases at Pervomaysk in the southern Ukraine. It is possible, moreover, that TLAM-Ns based in the eastern Mediterranean would be able to target Soviet ICBM fields in the Ukraine to prevent reloading for a Soviet second strike. Inasmuch as there would be a heavy demand for U.S. SSNs, the question

arises as to the number of boats which would actually be available for all missions. Priorities would clearly have to be established. One method of easing the difficulty would be to make the TLAM-N available for use by British and, perhaps, French SSNs.

Tomahawk also offers significant nonnuclear capabilities useful in any forward defense strategy. For example, TLAM-Cs -- the conventional warhead land-attack variant -- promise to play an expanding role in projection of sea power ashore, complementing carrier-based aircraft. TLAM-Cs could be particularly valuable in initial attacks on heavily defended targets -- Warsaw Pact airfields and port facilities -- where high attrition rates might be expected for manned aircraft. Other TLAM-C uses could include:

- Soviet air defense suppression (including surface-to-air missile systems) to facilitate strikes by U.S. carrier aircraft.
- Provision of off-shore support for Marine landings (e.g., in northern Norway). This might involve TLAM-C attacks on supply lines, command and control centers, bridges, tunnels, fuel and ammunition depots, and other key Soviet logistical facilities.

In performing such deep support missions, TLAM-Cs would substitute for certain strike functions of the carrier. Arranging for a division of labor between aircraft and missile, the operational commanders could give full responsibility for neutralizing fixed ground targets to the TLAM-C, relieving carrier aircraft of many land-attack

missions so that they could concentrate more on air superiority tasks. TLAM-C-armed platforms, however, should not be seen as a substitute for carrier air power. The TLAM-C should be treated as a select land-attack weapon for missions limited in number and specificity.

The most logical area for TLAM-C use would be on the NATO flanks, where its range limitations would have least impact. Given that range constraint (about 600 nautical miles), TLAM-C would have difficulty attacking targets on the Kola Peninsula, since launch points would be in Soviet-dominated waters (e.g., the Barents Sea). If the defense perimeter of the Soviet Navy were rolled back, however, surface- and submarine-launched TLAM-Cs could supplement carrier-launched strikes on a number of important targets.

TLAM-C could play a more direct -- if limited -- role in the North Sea theater. If operations off the western coast of Denmark, or north of the East Frisian Islands, could be sustained, East German naval bases at Peenemunde, Warnemunde, Dransk-Bug and Sassnsitz would become likely targets for surgical TLAM-C attacks. These attacks, if successful, would deprive the Soviet Baltic Fleet of combat support in assaulting the Danish straits.

TLAM-C's potential contribution to the land battle on the Central Front, however, is less certain. On the one hand, neither the number nor the explosive power of available TLAM-Cs is likely to provide sufficient punch to

air elements on the Central Front. Carrier task groups at sea can be quickly repositioned to indicate U.S. or Allied concerns without arousing a sense of war hysteria among Alliance populations. Their movements, therefore, carry only a limited Allied political price.

Development of effective naval force rules of engagement is somewhat easier than for land forces. Better equipped to survive a preemptive strike, given modern defensive systems as well as their greater maneuverability, naval forces confront less ambiguous contingencies. This is true despite the fact that missile-armed Soviet shadowers are constant companions of Sixth Fleet battle groups. In periods of rising tension, proper ROE would permit operations designed to neutralize such preemption pickets. Logic suggests that it would be in NATO's interest to shift a larger fraction of its tactical firepower to sea to force the USSR to initiate any war unambiguously with attacks at sea. An obvious Soviet target would be Allied surface ships armed with land-attack cruise missiles. Such forces, in combination with carrier groups, would also offset widespread destruction of NATO land-based air power in a surprise attack as a result of ROE failures.

Various options to counter Soviet surface shadowers illustrate the tactical and technological side of the ROE debate. Escalating measures to be taken as tensions increase would include:

Priorities, however, change drastically in limited conflict or short-of-war crises. Accidental damage to neutrals would have enormous political significance, and the potential for such damage would surely affect any choice of rules of engagement. Such rules in turn may determine the efficacy of some weapons systems.

The conclusion to be drawn seems obvious: successful rules of engagement must combine military utility with political acceptability. This is not always possible, however, and it is here that NATO seems particularly exposed. Its politically-oriented forward defense strategy would seem to require that the rules of engagement be preemptive. Yet, it is equally apparent that such rules would be politically unpalatable to Western politicians and publics. Military logic would seem to suggest, therefore, that if preemption is unacceptable, the Alliance should prepare to absorb the initial overt act that would allow it to begin to fight -- some equivalent, in other words, of defense in depth. However, many in NATO, especially the Europeans, argue against such preparations, since they might undermine the Alliance's current concept of deterrence -- namely, that a theater war in Europe would escalate quickly to a nuclear exchange.

Creative use of naval forces can provide subtle pressures signalling resolve without raising preemption fears which would accompany alert deployment of ground and



restraint, it is most likely because of their own perceived weaknesses. There is no point, after all, in launching a war which will probably end in defeat. By the same token, as their relative military power grows, the Soviet leaders may well become less and less cautious. According to some accounts, the younger generation of Soviet leaders, now coming to positions of influence and operational command, might be less willing to accept past constraints, and more eager to demonstrate Soviet power.

This is not to suggest that they intend to strike militarily at the West. It does imply, however, that the Soviets -- given their doctrinal predilection toward deception and surprise attacks -- are better prepared to seize the initiative and exploit Western inhibitions over the use of force, especially in the "no war, no peace" situations that are prevalent today. Indeed, in recent years, the problem of limited warfare has served to complicate the ROE issue for U.S. forces. The question arises, for example, of the circumstances under which a commander can open fire if he is uncertain about his target's identity. In war, the emphasis would be on whether he might accidentally hit a friendly unit. Considerable emphasis has therefore been placed on identification: Friend or Foe? (IFF) systems. Damage to neutrals would be regrettable, but it would be assumed that they had entered a combat zone at their own risk.

combination of factors, including the current state of military technology and current military and naval dispositions. Proper drafting of such instructions cannot, however, offset gross technical, tactical, and strategic deficiencies. Thus, it is possible to postulate two ROE failures in a NATO context: military disaster caused by excessively restrained rules, and political disaster due to excessive looseness.

In seeking to avoid such disasters, however, the West may be at a disadvantage vis-a-vis the Soviet Union. There is, for example, a vital difference between Western and Soviet perceptions of the concept of war itself. To most Westerners, a major war is something to avoid if possible and terminate as rapidly as possible. Emphasis is placed on distinguishing military from nonmilitary actions so as to minimize the possibility of an armed clash, avoiding war being the prime objective. In essence, the West generally seeks to preserve the status quo in international affairs, and its ROE reflect that priority, cautioning restraint.

The Soviets, on the other hand, view matters quite differently. Their ideology emphasizes the dynamic character of history and to admit that the status quo is desirable would run counter to the avowed objectives of the current Soviet regime. Consequently, the Soviets cannot (at least overtly) espouse measures designed to stabilize a limited conflict. Where Soviet rules of engagement enjoin

explosive-laden truck which, a few moments later, destroyed their barracks. ROE issues appeared, in a more tacit way, in the action of U.S. naval vessels assigned later to patrol the mouth of the Persian Gulf. The warships were authorized to destroy without warning any airplane approaching them more closely than five miles at an altitude below two thousand feet. On the Soviet side, the destruction of the KAL Flight 007 might be ascribed in part to rules of engagement reflecting a radically different philosophy.

Rules of engagement are particularly crucial to the operation of U.S. naval forces, since they are so often engaged in actions which can be construed as warlike or near-warlike, and because they spend so much of their time in close proximity to adversaries. This would be especially true in the context of a maritime strategy that seeks to enhance the role of naval forces in forward defense and crisis management situations. In a real prewar crisis, ROE might well determine the extent to which allied naval (and land) forces could meet their attackers on a favorable basis.<sup>9</sup>

Behavior appropriate on the outbreak of war would hardly be appropriate to many situations superficially similar to a prewar crisis. Rules of engagement seek to minimize the likelihood of initial wartime disaster while also avoiding illegal or provocative peacetime military actions. The extent to which this is possible depends on a

Soviet planners usually try to tailor their arms control negotiating positions to the force goals they wish to achieve during the lifetime of the agreement being hammered out. In contrast, the United States has often allowed hope that an agreement was close at hand to guide its strategic force planning and procurement strategies, thereby causing years of delay in vital development or modernization programs. Bearing these lessons in mind, the Navy must guard against hasty and inadequately considered proposals to demonstrate our national commitment to negotiating "in good faith" by throwing the sea-launched cruise missile, a weapon of great potential flexibility, into "the arms control pot."

#### The Current Debate Over Rules of Engagement

Rules of engagement (ROE) -- or standing orders which govern a commander's ability to open fire -- are only rarely discussed openly. Yet they affect many of the continuing developments in naval technology and tactics and, to a large extent, will define the prospects for current efforts to make broader use of naval forces in support of NATO forward defense.

The peacetime relevance of rules of engagement became apparent in Beirut in 1983, when the Marines' rules were blamed for the failure to stop or destroy the

- Since the proliferation of technology cannot be halted, any agreement between the United States and the Soviet Union would leave their fleets vulnerable to every nation procuring such technology.
- Verification of limits on the numbers, characteristics, and deployment of cruise missile presents insurmountable difficulties.
- Since arms agreement verification is exceedingly difficult, cruise missiles will likely be widely dispersed and equally difficult to target in a "first strike."
- In this light and as a result of their relatively slow speed, they can be considered a stabilizing element in the nuclear balance.
- Even should the two superpowers reach agreement on control of these versatile weapons, the question of on-site inspection -- the only means of ensuring compliance -- would likely be unacceptable.

One is thus left in the following position. Any U.S. decision to delay development and deployment of SLCMs while awaiting arms control agreements would be tantamount to a unilateral concession even before actual negotiations get under way. This would be foolhardy, especially since the Soviet Union does not believe in exchanging weapons in being for weapons still on paper. SALT did little to restrain the Soviet Union from doing what it was technologically and economically capable of doing. In the specific case of nuclear-armed SLCMs, for example, there is strong evidence that the USSR continued to maintain operational missiles that exceeded a range of 600 kilometers, even though such ranges were prohibited by the Protocol of the SALT II Treaty.

than to the Soviet Union. Major American targets are closer to the coast -- and, hence, more likely to be reached by range-restricted SLCMs -- than the key Soviet targets, which tend to be located much further inland.

Equally strong objections can be raised against arms control agreements based on platform restrictions. In this case, verification may be technically possible: surveillance of surface ships by national technical means is feasible, and even SLCMs on submarines modified for externally mounted launch can be monitored. But this still leaves the issue of missile launch from torpedo tubes unanswered insofar as verification is concerned. As for resort to "functionally related observable differences" (FRODs), it is evident that this tactic cannot overcome arms control dilemmas generated by the SLCM's design and its deployment flexibility. The conclusion to which the very nature of the cruise missile drives one is that attempts to restrict its use in a nuclear attack mode are bound to destroy the utility of its conventional explosive variants. Despite the altogether admirable goal of controlling nuclear weapons, the following factors must be placed on the balance scale of arms control negotiations between the United States and the Soviet Union:

- Constraints on nuclear versions of the cruise missile, to be effective, will have to be applied to conventionally armed variants as well.

this approach, a ban would seriously degrade the standoff conventional capabilities of U.S. naval forces. The latter's ability to project firepower ashore and to extend defense perimeters of carrier battle groups would be reduced. Moreover, the overall advance of technology and its proliferation raises the prospect that numerous other navies -- unconstrained by any U.S.-Soviet agreement -- would be able to acquire longer-range cruise missiles, thereby placing the U.S. Navy at a serious disadvantage in global crisis contingencies. Nor is the idea of negotiating a limit only on the total number of TLAM-Ns a compelling prospect. In addition to the verification problems already noted, Moscow is not likely to offer an acceptable trade-off -- say, in the number of MIRVed warheads on Soviet land-based ICBMs, or the dismantling of SLCMs already in service with the Soviet Navy -- to compensate for the obviously adverse impact lower TLAM-N deployments would have on NATO's theater nuclear deterrent, and on the reduced effectiveness of a U.S. cruise missile force deployed at sea.

Geographical restrictions on SLCMs are also unappealing. Since the primary strategic asset of the sea-launched Tomahawk is its long range, it would make little sense to invest in a weapon system whose main asset is being eroded by an arms control agreement. Moreover, depending on how they are drawn, such restrictions are likely to be far more disadvantageous to the United States

TASMs. Similarly, a limitation on SLCM launchers would hamper Navy plans to integrate conventional Tomahawks' ordnance loads and operational planning.

- Any limitation on the range of cruise missiles would seriously reduce the strategic value of the SLCM, and the operational flexibility of ships carrying them.
- An agreement limiting all cruise missile ranges to 600 kilometers would seriously degrade the main SLCM asset -- its long-range -- and virtually end current research and development on even longer-range versions. Such missiles would provide the U.S. Fleet with greater opportunities to target essential political and military-industrial complexes deep within Soviet territory. Longer ranges might also allow SLCMs to play a larger role on NATO's Central Front.
- Deploying SLCMs only on a limited number of distinctive surface ships -- as some arms control advocates advise -- would vastly limit the conventional capability of the SLCM, since it would eliminate its use by submarines.
- Installing SLCMs only in SSNs equipped with vertical launchers mounted external to the hull could ease verification problems but, again, there would be no way to distinguish between conventional or nuclear SLCMs short of on-site inspections.

Technical and operational factors inherent in the SLCM's design and deployment options thus render achievement of a verifiable and mutually acceptable arms control agreement exceedingly difficult. The most clear-cut form of verification -- an outright ban -- could be applied, but this is hardly advisable from a military point of view. Given probable Soviet unwillingness to accept and abide by



There is a need for detailed planning and coordination if SLCMs are to be employed in support of NATO army and air force missions.

Arms Control and the  
Sea-Launched Cruise Missile

Viewed in the context of theater deterrence and warfighting options, then, the Tomahawk SLCM occupies a place of central importance. Deployment of TLAM-N obviously will raise questions as to the number of nuclear weapons available to various Allied naval commanders, but such uncertainty has its merits. Since the Soviets could not distinguish nuclear-armed SLCM platforms, they would have to assume all to be nuclear-capable. Rather than adding unnecessarily to the U.S. nuclear arsenal, a limited TLAM-N deployment might be able to achieve a deterrent effect equal to that of a far larger number of missiles than are actually being deployed.

Reaching an arms control agreement on SLCMs compatible with U.S. security appears improbable for several strategic and technical reasons.

- SLCMs, like all cruise missiles, would require unique verification measures, due to their dual-capability, the common body design, and their multifarious launch modes.
- Since the U.S. Navy intends to deploy nuclear and conventional SLCMs in mixed packages, a ban or limitation on TLAM-Ns would disrupt deployment of TLAM-Cs and

torpedo-launched TASMs -- and variants usable against hardened or mobile land targets. Investing SLCMs with the latest smart-weapon technology will increase their usefulness in the land battle and the FOFA concept.

These technical concerns aside, SLCMs could generate political difficulties. TLAM-N forces could, for instance, encourage backsliding on NATO commitment to INF deployment, offering a less controversial, sea-based theater deterrent. This theme would certainly be exploited by the USSR and by political factions in Western Europe opposed to INF. At the same time, widespread installations of TLAM-Ns in the U.S. fleet might pose additional problems with respect to overseas basing and port visits, similar to current difficulties with New Zealand and the People's Republic of China. All SLCM-armed men-o'-war would likely be considered nuclear-capable subject to challenge by antinuclear forces in allied or friendly states.

Finally, operational ambiguities and inter-service complications surround SLCMs. Significant command and control problems could develop between naval and ground commanders with respect to the most appropriate targets for land-attack Tomahawks, especially TLAM-Cs. In any combat situations, communication with submarines would be difficult and, when submarine action has to be coordinated with that of tanks, for example, difficulties would be compounded.

armed submarines could target Soviet base facilities in the Third World and project power against Soviet client-state forces which do not possess the defenses the Soviet Union enjoys in its home waters. The use of such platforms, moreover, might reduce the need to divert carriers to Third World conflict environments.

Finally, a prime SLCM task will be to strike naval targets at sea, using the antiship Tomahawk (TASM). With its long reach (250 nautical miles), sub-launched TASMs will allow submarines to fire from beyond range of most enemy ASW forces. TASM-armed surface ships and submarines -- operating with aircraft carriers -- could attack enemy warships up to a distance of 600 miles from the formations.

SLCMs are not, however, without their shortcomings. On the technical side, for example, even if SLCM-armed naval craft evade Soviet defenses, the missiles, themselves, might be destroyed in flight by SA-10 missiles and interceptor aircraft equipped with "look-down, shoot-down" radars. Thus, every effort must be made to improve the survivability, flexibility, and stand-off qualities of current as well as future SLCMs. In this context, new Stealth technologies, less detectible sensors, speed variation techniques, and improved guidance systems could provide enhanced Tomahawk penetrability and accuracy. Additionally, research on warhead variations should be pressed, including advanced ASW versions -- resubmersible

alter in any significant way the progress of ground formations, especially those in the first line of attack. Moreover, the lack of a real-time coordinated intelligence and reconnaissance system for over-the-horizon targeting in direct link with ground operations would greatly hamper TLAM-C strikes on moving targets. As for enemy airstrips, an important fixed target, they can take a considerable pounding before being seriously damaged, and even then (as U.S. experience in Vietnam has shown) the effect is generally of short duration. Given its capacity for deep interdiction, TLAM-C could be used to strike rear area logistical networks and staging areas, thereby degrading the Pact's ability to consolidate initial gains with follow-on forces. Although perhaps temporary, TLAM-C strikes closely coordinated with NATO tactical air operations could have major impact. TLAM-C might be usefully integrated into the NATO Follow-On Forces Attack (FOFA) concept. This, however, might involve shifting control of part of the SLCM arsenal from SACLANT to SACEUR. A few likely ground combat zones on the Southern Flank, such as the Bulgarian borders with Turkey and Greece, are within TLAM-C range, but better use would be attacks on Mediterranean ports which may aid or abet the Soviet Mediterranean Squadron. Moreover, Pact C<sup>3</sup> installations, including air control centers, would appear to be prime targets. TLAM-C is also likely to prove useful in operations beyond NATO's geographical boundaries. TLAM-C

- Continuously escort Soviet missile ships within striking range of a carrier.
- Orbit U.S. attack bombers loaded with antiship munitions over Soviet ships.
- Declare "sanitary" zones in the vicinity of U.S. naval formations as was done in the Arabian Sea region.
- Publicize rules of engagement that authorize preemptive attacks against ships, aircraft, or submarines making hostile moves toward such formations: loading of missile launchers, training fire control radars on U.S. ships, submarine penetration of outer ASW screens, etc.

Other options such as withdrawal of carrier battle groups to more secure areas during times of tension would not only send the wrong signal to Moscow but could sacrifice optimum positioning of these forces should war eventuate. The use of the warship's inherent maneuverability would be a far better means of complicating the Soviet targeting problem and planning for a preemptive initial strike at sea.

As suggested, existing national and NATO ROE differ widely. Between the United States and NATO, this difference centers in the first instance on enemy behavior. The United States assumes it prudent to act on clear demonstration of hostile intent. NATO, on the other hand, insists that retaliation must await hostile action on the part of the enemy. In the second instance the focus is on the degree to which ROE will delegate authority to take armed action against an imminent threat. In the case of the United States, as frequently demonstrated during the past four

decades, ROE provide considerable leeway to task force and group commanders -- witness the shooting down of two Libyan jets in the Gulf of Sidra. Following TOA at Reinforced Alert, comparable NATO ROE can only be described as vaguely defined, itself a prescription for disaster. One of the more urgent tasks within NATO is the formulation of sound ROE extending across the full conflict spectrum from crises short of war to wartime itself. Otherwise, despite efforts to improve the quantity and quality of its naval forces, NATO's forces and those of the United States when under Allied command will be at a decided disadvantage compared with the Soviets, who will continue to enjoy greater freedom to seize the initiative in potential naval confrontations, including the distinct luxury of an unopposed first strike.

## FOOTNOTES

1. See S. G. Gorshkov, The Seapower of the State (London: Pergamon, 1979), p. 219.
2. See, for example, S. G. Gorshkov, "The Development of Soviet Naval Art," Morskoi Sbornik, February 1967; Bryav Ravft and Geoffrey Till, The Sea in Soviet Strategy (Annapolis: Naval Institute Press, 1983), p. 240. See especially Chapter 7, "The Missions of the Soviet Navy," pp. 142-204; H. P. Willmot, Sea Warfare Weapons, Tactics and Strategy (Chichester: Strettington House, Antony Bird Publications, Ltd., 1981), p. 165; and James Cable, Britain's Naval Future (London: Macmillan Press Ltd., 1983), p. 220.
3. For an evaluation of the Falklands War and its lessons for the United States, see Bruce W. Watson and Peter M. Dunn, Eds., Military Lessons of the Falkland Islands War (Boulder, Colorado: Westview Press, 1984). George: p. 19.
4. Major Alexander P. deSeversky, Victory Through Air Power (New York: Simon and Schuster, 1942), p. 164.
5. Nearly half (12 of 27) of major Soviet amphibious ships are assigned to the Baltic Fleet. These are augmented by about 40 East German and Polish amphibs of equal or only slightly less capability.
6. For detailed treatment of this dependence, see Energy Issues and Alliance Relationships (1980); The Cape Route: Imperiled Western Lifeline (1981); The West, Japan and Cape Route Imports: The Oil and Non-Fuel Mineral Trades (1982); and World Energy Supply and International Security (1983); all published by the Institute for Foreign Policy Analysis in association with the Fletcher School of Law and Diplomacy, Tufts University.

7. Both Norway and Sweden have indicated that they will destroy submarines which invade their waters.
8. See Volume II, Table 1.
9. Various mixes of the three Tomahawks will be placed on over 190 platforms, including nuclear-powered attack submarines, cruisers, battleships, Spruance- and DDG-51-class destroyers. Full procurement will total about 4,000 SLCMs, some 3,200 of them conventionally armed (TLAM-C or TASM).
10. Except for the Standing Naval Force Atlantic (STANAVFORLAND) and the Naval On-Call Force Mediterranean (NAVOCFORMED), when the latter is activated, NATO ROE do not apply until the Transfer of Authority (TOA) over ships which is effected at Reinforced Alert. Until that time, national ROE obtain, and they vary widely.



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